

Sphagnum brevifolium

A sphagnum

Status

Federal status: G5T4T5, Not listed

NH state status: SH, Not listed; proposed for endangered status (5/03)

ME state status: Not ranked or listed

Population trends are unknown locally and globally. In NH, the only known occurrence is from 100+ years ago, but whether this area has been revisited to look for this species is unknown.

An expert panel was not held for *Sphagnum* species and those experts who did provide information about this species were not asked to identify viability outcomes.

Distribution

Overall distribution of this species is not certain. In North America, it is documented from Newfoundland, Quebec, New Hampshire, New York, New Jersey, and Maryland. Globally it is found in northwestern Europe (Britain, Finland, Norway, Germany, Austria, and France) and the lower Amur Basin of Asiatic Russia.

In New Hampshire there is 1 historic occurrence in Sargent's Purchase, Coos County. It is in Oakes Gulf on Mt. Monroe, in the WMNF. This species is not documented from Maine.

Habitat

Sphagnum brevifolium is known from poor and intermediate fen habitats. It seems to do best in transitional wetlands between poor and intermediate conditions. This species occupies low hummocks and wet carpets, but seems to prefer high-level carpets. It is weakly minerotrophic.

In Europe it is occasionally found on mineral soil in damp spruce forests or, even more rarely, on north-facing rocks in coniferous forest. In these habitats, it is usually small and compact.

Limiting Factors

Ditching, flooding, draining, grading, and logging all can have substantial impacts on peatland habitats, which then affects the suitability of these habitats for *Sphagnum* species. Activities that change local hydrology cause the greatest changes in habitat suitability.

Sphagnum species, in the form of peat, are collected for a variety of purposes. This collection not only impacts the individual plants, it can make the habitat unsuitable for *Sphagnum* species.

Trampling can directly affect *Sphagnum* species and their peatland habitats.

Studies in Britain have shown changes in peatland habitats from acid rain, but studies in North America do not show similar results. Climate plays a key role in development and

maintenance of peatlands, but what effect accelerated climate change will have is unknown.

Viability concern

Little is known about *Sphagnum* species, and the proposal by NHNHI to list this species as endangered indicates concern for this species. NHNHI recommended including those *Sphagnum* species that are proposed for listing and are known to occur on the WMNF as species of potential viability concern.

Management activities that might affect viability

Activities that alter water levels in bogs and fens could impact habitat suitability, depending on the timing, regularity, and intensity of changes in water levels. Such activities might include construction, modification, or removal of dams, including removal of beaver-created dams. Road and trail construction or other activities that alter the hydrology of a pond or bog also could affect this species if it is present.

Recreational use and facility construction along pond, fen, and bog shores could reduce habitat suitability and increase the risk of direct impact to populations.

References

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